The Industrial and Energy Minerals Bureau's <u>Administrative Rules of Montana</u>, <u>Sub-Chapter 10: Prospecting</u>, was revised in 1995. The definition for "Prospecting" [82-4-203 (26), Montana Code Annotated (MCA)] and statutory language regarding "Prospecting Permits" [82-4-226 MCA] were also revised by the 54th Montana legislature. The changes in the prospecting sections of MCA and ARM were necessary to be as effective as federal regulation requirements under Public Law 95-87 (Surface Mining Control and Reclamation Act of 1977 - SMCRA).

These changes were first submitted to operators on May 10, 1996. The two principal points are:

1.) Prospecting Permits:

In order to ensure compliance with ARM <u>17.24.1001 PERMIT REQUIREMENT</u>, all prospecting permit renewal applications must include a permit revision application to bring existing permits into compliance with ARM <u>Sub-Chapter 10</u> requirements that became effective October 27, 1995. All future prospecting permit applications must be submitted in the context of current statutes and rules.

2.) Notices of Intent to Prospect (NOI):

A new rule, ARM <u>17.24.1018 NOTICE OF INTENT TO PROSPECT</u>, was also implemented in October of 1995 (effective date of the new rule, October 27, 1995). All Prospecting activities [as defined in 82-4-203 (25), MCA] that do not require a prospecting permit as per ARM <u>17.24.1001 PERMIT REQUIREMENT</u>, must be conducted in compliance with ARM <u>17.24.1018 NOTICE OF INTENT TO PROSPECT</u>.

Our first mailing regarding these changes generated considerable comment from the USDI Office of Surface Mining (OSM), as well as from the regulated industry. As a result, we revised our approach to permitting and reporting of any prospecting activities which are *tangibly linked to the Strip or Underground Mine Permit (SMP)*, but which lie outside the contiguous, "conventional" SMP boundary. These revisions will apply to all prospecting activities - coal and overburden evaluations and gathering of environmental data [82-4-226 (1) through (8), MCA].

A discussion of these changes follows:

A. Prospecting Notices of Intent:

Overburden Evaluations, Environmental Monitoring Facilities and Activities, and Mineral Evaluations That <u>Do Not</u> Substantially Disturb The Land, [82-4-203 (25) (a)(i), (b), and 82-4-226 (8), MCA]:

Discussions with OSM indicated that the intent of the federal rule makers was that the Notice of Intent apply to activities of comparatively short duration, scope and effect, taking place *before* a valid SMP is issued. The Department concurred with this interpretation. In addition, as long as such a facility or activity is *tangibly related to* a valid SMP, and *included in or amended into* the SMP, it may lie or take place *outside* of the contiguous, "conventional" permit boundary.

The principal effects of these changes are as follows:

- X Any project which involves facilities or activities for overburden evaluations, for the gathering of environmental data, and mineral evaluations that <u>do not</u> substantially disturb the land which are *not* tangibly related to an existing SMP, requires the filing of a Notice of Intent under ARM 17.24.1018.
- X For holders of a valid Montana SMP: Overburden evaluations, mineral evaluations that <u>do not</u> substantially disturb the land, and\or environmental monitoring facilities and activities conducted in relation to or as part of the SMP, that occur within <u>or</u> outside of the "conventional" SMP boundary, must take place (and must be permitted) under the SMP. No separate Notice of Intent permit is necessary. To accomplish this, any such mine-related facilities or activities not currently included in or covered by the SMP must be revised or amended into the SMP, as per ARM 17.24.415 and 17.24.417 and other relevant rules, and bonded accordingly. This includes existing mine-related facilities or activities which may currently be covered by an existing Notice of Intent or Prospecting permit.

B. Prospecting Permits:

Mineral Evaluations That Substantially Disturb the Land Surface, and Prospecting

Activities in Which More Than 250 Tons of Coal is Removed [82-4-203 (25) (a)(ii), MCA]:

As a result of policy revisions in the context of Prospecting Notices of Intent, the Department reevaluated permitting procedures for prospecting involving mineral evaluations noted at B., above. Discussions with OSM indicate their concurrence with the Departments interpretation of 82-4-203 and 82-4-226, MCA that mineral evaluation-related activities and prospecting activities in which more than 250 tons of coal is removed, and that are *tangibly related to* a valid SMP, may and probably should be included in or amended into the SMP. These activities may lie or take place *outside* of the contiguous, "conventional" permit boundary. These decisions have significantly changed our historical interpretation of permitting and reporting requirements for prospecting that is conducted to determine the location, quality and quantity of a mineral deposit, or that removes more than 250 tons of coal.

The effects of this change are as follows:

Mineral evaluation activities that substantially disturb the land, and prospecting activities where more than 250 tons of coal is removed and which are tangibly related to the mining operation, should be approved and carried out under the SMP and must be appropriately bonded. This includes all such evaluations or activities taking place outside the contiguous mine permit boundary.

The Prospecting permit (for activities defining the quantity or quality of coal) and the Notice of Intent (for overburden evaluations, environmental monitoring and related facilities, etc.) will henceforth be *required* only for prospecting activities in areas *not* tangibly proximally related to or included in a valid SMP.

Mine-related prospecting facilities and activities located or taking place outside a SMP boundary will not automatically be covered by the SMP. Operators will need to take positive steps to insure that any such activities are included in the permit. Guidelines for doing so are included in Attachments 4 and 5.

We believe that these procedures will have a positive effect for operators and for the Department. Operators will generally be maintaining a single permit, rather than multiple permits or notices, to cover all tangibly mine-related activities and facilities. This will also eliminate the need for annual renewals, as required for prospecting permits and Notices of Intent, and eliminate the attendant paperwork and tracking obligations.

LIST OF ATTACHMENTS

Attachment 1: Definition for "Prospecting" [82-4-203 (25), MCA], and revised section 82-4-226, MCA (statutory language regarding Prospecting Permits and Notices of Intent to Prospect).

Attachment 2: Guide to Applicability of Prospecting Requirements

Attachment 3: Categories of Activities Under the New Prospecting Definition.

Attachment 4: Guidelines for Transferring Off-Permit Activities into an SMP

Attachment 5: Sample Permit Revision Language, 17.24.1001 and 17.24.1018.

Definition for "Prospecting" [82-4-203 (25), MCA], and revised section 82-4-226, MCA. (statutory language regarding Prospecting Permits and Notices of Intent to Prospect)

82.4.203. Definitions

- (25) "Prospecting" means:
 - (a) the gathering of surface or subsurface geologic, physical, or chemical data by mapping, trenching, or geophysical or other techniques necessary to determine:
 - (i) the quality and quantity of overburden in an area; or
 - (ii) the location, quantity, or quality of a natural mineral deposit; or
 - (b) the gathering of environmental data to establish the conditions of an area before beginning strip-or underground-coal-mining and reclamation operations under this part.

Prospecting Permit and Prospecting Notice of Intent Required [82-4-226, MCA]

- **82-4-226. Prospecting Permit.** (1) Except as provided in subsection (8), prospecting by any person on land not included in a valid strip-mining or underground-mining permit is unlawful without possessing a valid prospecting permit issued by the Department as provided in this section. A prospecting permit may not be issued until the person submits an application, the application is examined, amended if necessary, and approved by the Department, and an adequate reclamation performance bond is posted, all of which prerequisites must be done in conformity with the requirements of this part.
- (2) An application for a prospecting permit must be made in writing, notarized, and submitted to the Department in duplicate upon forms prepared and furnished by it. The application must include among other things a prospecting map and a prospecting reclamation plan of substantially the same character as required for a surface-mining or underground-mining map and reclamation plan under this part. The Department shall determine by rules the precise nature of the required prospecting map and reclamation plan. Any applicant who intends to prospect by means of core drilling shall specify the location and number of holes to be drilled, methods to be used in sealing aquifers, and other information that may be required by the Department. The applicant shall state what types of prospecting and excavating techniques will be employed on the affected land. The application must also include any other or further information that the Department may require.
- (3) The application must be accompanied by a fee of \$100. This fee must be used as a credit toward the strip-mining or underground-mining permit fee provided by this part if the area covered by the prospecting permit becomes covered by a valid surface-mining or underground-mining permit obtained before or at the time the prospecting permit expires.
 - (4) Before the Department gives final approval to the prospecting permit application, the

applicant shall file with the Department a reclamation and revegetation bond in a form and in an amount as determined in the same manner for strip-mining or underground-mining reclamation and revegetation bonds under this part.

- (5) In the event that the holder of a prospecting permit desires to strip mine or underground mine the area covered by the prospecting permit and has fulfilled all the requirements for a strip-mining or underground-mining permit, the Department may permit the postponement of the reclamation of the acreage prospected if that acreage is incorporated into the complete reclamation plan submitted with the application for a strip-mining or underground-mining permit. Any land actually affected by prospecting or excavating under a prospecting permit and not covered by the strip-mining or underground-mining reclamation plan must be promptly reclaimed.
- (6) The prospecting permit is valid for 1 year and is subject to renewal, suspension, and revocation in the same manner as strip-mining or underground-mining permits under this part.
- (7) The holder of the prospecting permit shall file with the Department the same progress reports, maps, and revegetation progress reports as are required of strip-mining or underground-mining operators under this part.
- (8) Prospecting that is not conducted in an area designated unsuitable for coal mining pursuant to 82-4-227 or 82-4-228 and that is not conducted for the purpose of determining the location, quality, or quantity of a natural mineral deposit is not subject to subsections (1) through (7). In addition, prospecting that is conducted to determine the location, quality, or quantity of a natural mineral deposit and that does not substantially disturb the natural land surface is not subject to subsections (1) through (7). However, a person who conducts prospecting described in this subsection shall file with the Department a notice of intent to prospect that contains the information required by the Department before commencing prospecting operations. If this prospecting substantially disturbs the natural land surface, it must be conducted in accordance with the performance standards of the board's rules regulating the conduct and reclamation of prospecting operations that remove coal. The Department may inspect these prospecting and reclamation operations at any reasonable time.

History: En. Sec. 8, Ch. 325, L. 1973; and. Sec. 20, Ch. 441, L. 1975; R.C.M. 1947, 50-1041; and. Sec. 2, Ch. 196, L. 1979; and. Sec. 2, Ch. 225, L. 1993; and. Sec. 3, Ch. 159, L. 1995; and. Sec. 371, Ch. 418, L. 1995.

GUIDE TO APPLICABILITY OF PROSPECTING REQUIREMENTS (82-4-203(25) and 82-4-226, MCA)

<u>ARM 17.24.1001 PERMIT REQUIREMENT,</u>

ARM 17.24.1014 TEST PITS: APPLICATION REQUIREMENTS, REVIEW PROCEDURES, BONDING, AND ADDITIONAL PERFORMANCE STANDARDS,

AND

ARM 17.24.1018 NOTICE OF INTENT TO PROSPECT

- (1) Activity meets the definition of "Prospecting" [82-4-203 (25), MCA]?
 - NO Prospecting Permit, Test Pit Permit, and Notice of Intent to Prospect (NOI) requirements are not applicable. No Montana Strip and Underground Mine Reclamation Act requirements are applicable
 - YES Proceed to (2)
- (2) Is the Coal or Uranium prospecting related activity to take place on the land surface?
 - NO Prospecting Permit, Test Pit Permit, and NOI requirements are not applicable. No Montana Strip and Underground Mine Reclamation Act requirements are applicable.
 - YES Proceed to (3).
- (3) Activity to be conducted on land included in a valid strip-mining or underground-mining permit?
 - YES Please refer to notification, revision, reclamation and reporting requirements included in the mining permit. (See also Attachment 4).
 - NO Proceed to (4)
- (4) Will the coal or uranium prospecting activity take place on lands designated as unsuitable for mining? (See 82-4-228, MCA).

NO - Proceed to (5)

YES - Proceed to (7)

(5) Will coal or uranium location, quantity or quality information be generated as a result of the prospecting activity?

NO - File a NOI in compliance with ARM 17.24.1018, and incorporated rules.*

YES - Proceed to (6)

(6) Does the activity constitute "Substantial Disturbance" [as defined in ARM 17.24.301 (114)]?

NO - File a NOI in compliance with ARM 17.24.1018, and incorporated rules.*

YES - Proceed to (7)

(7) Will the prospecting activity remove more than 250 tons of coal?

NO - File an application for a Prospecting Permit. Refer to ARM 17.24.1001 and incorporated rules .*

YES - File an application for a Prospecting Test Pit Permit. Refer to ARM 17.24.1014, and incorporated rules.*

* NOTE: The Department will carefully review each Prospecting Permit Application, Test Pit Permit Application, and NOI, and will conduct an Environmental Assessment (EA) and possibly require inclusion of an Environmental Impact Statement (EIS) in relation to each application and notice. If, as a result of these evaluations, the Department determines that the criteria contained in 82-4-227 (1) or (2), MCA (below) are met, the application or notice may not be approved.

82-4-227. Refusal of permit. (1) An application for a prospecting, strip-mining, or underground-mining permit or major revision may not be approved by the Department unless, on the basis of the information set forth in the application, in an onsite inspection, and in an evaluation of the operation by the Department, the applicant has affirmatively demonstrated that the requirements of this part and rules will be observed and that the proposed method of operation, backfilling, grading, subsidence stabilization, water

control, highwall reduction, topsoiling, revegetation, or reclamation of the affected area can be carried out consistently with the purpose of this part. The applicant for a permit or major revision has the burden of establishing that the application is in compliance with this part and the rules adopted under it.

- (2) The Department may not approve the application for a prospecting, strip-mining, or underground-mining permit when the area of land described in the application includes land that has special, exceptional, critical, or unique characteristics or when mining or prospecting on that area would adversely affect the use, enjoyment, or fundamental character of neighboring land that has special, exceptional, critical, or unique characteristics. For the purposes of this part, land is defined as having these characteristics if it possesses special, exceptional, critical, or unique:
- (a) biological productivity, the loss of which would jeopardize certain species of wildlife or domestic stock;
- (b) ecological fragility, in the sense that the land, once adversely affected, could not return to its former ecological role in the reasonably foreseeable future;
- (c) ecological importance, in the sense that the particular land has such a strong influence on the total ecosystem of which it is a part that even temporary effects felt by it could precipitate a systemwide reaction of unpredictable scope or dimensions; or
- (d) scenic, historic, archaeologic, topographic, geologic, ethnologic, scientific, cultural, or recreational significance. In applying the provisions of this subsection (d), particular attention should be paid to the inadequate preservation previously accorded Plains Indian history and culture.

Categories of Activities Under the New Prospecting Definition

Examples of coal or uranium related prospecting activities that must be included in an SMP or require the filing of a NOI include, but are not limited to:

iling of a NOI include, but are not limited to:

Construction/installation of wells;

Coring or excavating soil or overburden;

Construction/installation of air or water sampling stations or devices;

Installation of air photo markers on the earth surface;

Traversing the land surface to map vegetation, soils, cultural and historic resources, etc. before beginning coal or uranium drilling or mining;

sampling soils, vegetation, cultural and historic resources, etc. to establish the conditions of an area before beginning coal or uranium drilling or mining;

.....

Activities that <u>do not</u> constitute "Substantial Disturbance" [ARM 17.24.301 (114)] but **do** require the filing of an NOI include, but are not limited to:

Traversing the land surface by vehicle on dry or paved preexisting roads to <u>map</u> vegetation, soils, cultural and historic resources, etc. before beginning coal or uranium drilling or mining;

Traversing the land surface on foot to <u>map</u> vegetation, soils, cultural and historic resources, etc. before beginning coal or uranium drilling or mining;

.....

Activities that <u>do</u> constitute "Substantial Disturbance" [ARM 17.24.301 (114) and **do** require the filing of an NOI include, but are not limited to:

Coring or excavating soil or overburden;

Construction/installation of wells:

Construction/installation of air or water sampling stations or devices;

Installation of durable air photo markers on the earth surface;

Sampling vegetation, soils, cultural and historic resources, etc. before beginning coal or uranium drilling or mining;

Construction of waste disposal sites, or otherwise disposing of waste on or under the land surface;

Guidelines for Transferring Off-Permit Activities into an SMP

Environmental Facilities or Activities Related to a Valid SMP:

Operators should examine their operations for any mine-related activities or facilities lying or taking place outside the present SMP boundary. These activities must include any ground-traversing activities not taking place on existing roads. These activities will include conventional environmental monitoring facilities (reference areas, air-quality stations, monitoring wells, flumes or weirs, etc.) and monitoring activities. They must also include engineering activities or items such as installation and maintenance of survey monuments or aerial survey targets.

The SMP must be revised to include reference to Section 17.24.1018, Notice of Intent. All Aoff-permit≅ facilities and activities must be listed in this section. Where there are already appropriate descriptions of these activities (including maps) in other sections of the permit (hydrologic monitoring, veg monitoring, etc.), simply *reference* the appropriate section or plate. Where the material is not included in the SMP or is of insufficient detail to meet the requirements of ARM 17.24.1018, it must be submitted as part of this revision request. Where the SMP does not currently cover the activity at all, the revision request must include adding the activity to the SMP. *Appropriate bonding must also be included*.

It is strongly recommended that operators consider whether the activities or facilities to be covered should encompass future changes, i.e., moving or adding a monitoring station. In such cases, expanding the SMP description to cover such changes is recommended to give the operator greater operational flexibility and minimize the need for future minor revisions. Descriptions could include a generic design (for a flume or a monitoring well, for example), and maintenance and reclamation plan. There should be a commitment to (a) notify the Department, and (b) report any such changes in the annual report.

Activities Currently Covered by an Existing Prospecting Permit or NOI:

Some of the activities or facilities being revised into the SMP may currently be covered by an existing Notice of Intent, or an existing prospecting permit. For items covered by an NOI, the SMP revision should reference the NOI and request that the items in question be transferred into the SMP. The revision must include appropriate levels of bonding. Once the revision is approved, the NOI becomes redundant and will be canceled.

For environmental items covered by an existing Prospecting permit (commonly off-permit, mine-related prospecting drillholes and monitoring wells), the SMP revision

should reference the Prospecting permit and request that the items be transferred into the SMP, with appropriate bonding. *Once this is approved, the operator is encouraged to review the Prospecting permit. If there are no other outstanding liabilities, the Prospecting permit is eligible for bond release.*

"Off-Permit" Drilling or Coring Related to an SMP:

Drilling or coring activities for possible mine expansion must be revised into the SMP in a section keyed to 17.24.1001. Many of the information requirements can be satisfied by reference to the appropriate sections of the SMP. Reclamation commitments should reference the methods prescribed by ARM 17.24.1005. Appropriate bonding must be provided. In reporting these activities, operators should make sure that they also consider the requirements of ARM 17.24.305(1)(x), 308(2), 313(2,6,7), 314(1), 632, and (ultimately) 1116(7)(a).

Sample Permit Revision Language, 17.24.1001 and 1018

need to conduct areas under cons and related detai related disturbar	drilling-Related Activities: drilling-related activities to define coal and overbeideration for mine expansion. The Department wills with an appropriate map, when specific activitince will be conducted in accordance with 17.24.10 d in accordance with the provisions of 17.24.1005	urden quantity and quality in rill be notified of specific sites es are planned. All drilling-002(1)(2) and 17.24.1004 and
mine-related act	villation required by 17.24.1018:	be conducting a number of ities are listed below, along
	athering Activities, No Significant Disturbance: nonitoring activities, as approved in the SMP:	These are regular, mine-
O	Tegetation Monitoring: This activity will consist f vegetation test plots, as described in Section re included on Map, in the SMP.	
S	Groundwater Monitoring: This will consist of reampling and maintenance of existing monit ection of the SMP. The wells are included	tor wells, as prescribed in
S	urface Water Monitoring:	······
E	Etcetera,	
E	Ctcetera,	
E	Etcetera,	
occasion will be d bel	of these activities, vehicular access will be by exist al light overland travel by light utility vehicles. The uring dry conditions. Because of the nature of the ieves that these activities will not substantially distant be included in a separate monthly report.	o the extent possible, travel e activities involved,

In the event that weather conditions or other factors result in inadvertent significant

disturbance such as rutting or tracking, will repair and re-seed said damages with an approved seed mix as soon as possible, and agrees to carry out this activity in compliance with the requirements of ARM 17.24.1004 through 1013, including these actions in the monthly report.
The activities will be conducted in such a way as to insure that the areas affected are returned to their approved post-disturbance land-use.
Data-Gathering Facilities, Substantial Disturbance: has in place a number of environmental data-gathering facilities or features which lie outside of the SMP boundary, and which constitute significant disturbance to the land surface. These include:
Meteorology and Air Quality: meteorological monitoring stations and air quality stations. Locations on Map, in Volume, Chapter of the SMP.
Surface Hydrology: rain gauges, Parshall flumes and crest stage gauges, from Map, in Volume of the SMP. Descriptions in Volume
Groundwater Hydrology: Map in Volume shows monitor well locations.
Vegetation: Map in Volume shows the locations of reference areas, mostly in the 1/2 acre range. They are simple enclosures constructed of .
Etc.:
Some of these facilities (gauges, weirs, etc.) will periodically require repair or replacement. These activities will be conducted in compliance with ARM 26.4.1004 through 1013 and 1018 and will be reported in the annual report.
As these features are no longer need, they will be removed and the sites reclaimed in accordance with the requirements of ARM 17.24.1004 through 1013. The activities will be conducted in such a way as to insure that the areas affected are returned to their intended post-disturbance land-use in accordance with 17.24.1001(2)(m).
Data-Gathering Activities, Substantial Disturbance: In addition to the activities described above, will periodically need to carry out other activities outside of its SMP boundary which will significantly disturb the land surface. These activities will include:

Geotechnical Drilling: This activity consists of shallow geotechnical holes, to gather

engineering data on potential sites for sediment control ponds or other features being planned as part of proposed future mine expansion. The Department will be notified of specific sites and related details with an appropriate map, when specific activities are planned.

The holes will be drilled by auger, and will have an average depth of 20 feet. Bulk sampling will remove virtually all cuttings from the sites. The holes will be backfilled with bentonite chips to within 2 feet of the surface, with 2 feet of suitable plant growth material on top.

Vehicular access will be by existing roads and trails, with occasional incidental overland travel. To the extent possible, travel will be during dry conditions.

The information required under ARM 17.24.1001(2) (b) through (f) is contained in the SMP. Because this activity will involve drilling, it meets the definition of Asubstantial disturbance≅ of the natural land surface, in ARM 17.24.301. Because of this, agrees to carry out this activity in compliance with the requirements of ARM 17.24.1004 through 1013, including it in the monthly report. Archeological Excavation: will periodically need to excavate archeological sites in preparation for proposed mine expansion. Specific sites will be submitted to the Department, with an appropriate map. The excavations will average less than 1/2 acre. They will consist of a series of shallow 5-meter pits, less than 3 feet deep, and associated soil profile trenches and auger tests of a similar depth. Topsoil will be removed by shovel, screened and temporarily stockpiled on native ground at the site. Upon completion of the excavation, the pits will be backfilled with soil and the area raked and re-seeded with an approved seed mix. Vehicular access will be primarily by existing roads and trails, with incidental overland travel. To the extent possible, travel will be during dry conditions. In the event that weather conditions or other factors result in rutting or tracking, will repair and re-seed said damages with an approved seed mix, as soon as possible. The excavations and any incidental disturbances will be left compatible with the proposed post-disturbance land use. The archeological and historic information required in 17.24.1001(2)(c) is contained in

Department. The information required under ARM 17.24.1001(2) (b) and (d) through (f)

_, on file with the

is contained in the SMP.

